

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-31 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse (rm) IL-31 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 308227
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-31 Ser24-Thr164 Accession # Q6EBC2
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Human Interleukin-31 (IL-31) is a 24 kDa, short-chain member of the α -helical family of cytokines. The human IL-31 cDNA encodes a 164 amino acid (aa) precursor that contains a 23 aa signal peptide and a 141 aa mature protein (1, 2). The mature region shows four α -helices which would be expected to show a typical up-up-down-down topology. Human and mouse IL-31 share 24% aa sequence identity in the mature region (1). IL-31 is mainly associated with activated T cells and preferentially expressed by Th2 rather than Th1 cells. IL-31 signals via a heterodimeric receptor complex composed of a 120 kDa, gp130-related molecule termed IL-31 RA (also GPL and GLM-R) and the 180 kDa oncostatin M receptor (OSM R β) (2-6). In the complex, IL-31 directly binds to GPL, not OSM R (2, 3). IL-31 signaling has been shown to involve the Jak/STAT pathway, the PI3 kinase/AKT cascade, and the MAP kinase pathway (2-5). Although multiple isoforms of IL-31 RA are known, only a form that contains the entire length of the cytoplasmic domain is signaling-capable (2, 3). The IL-31 receptor is constitutively expressed by keratinocytes and upregulated by IFN- γ on monocytes (1). Studies using transgenic mice indicate that IL-31 may contribute to the pruritis (itching) associated with nonatopic dermatitis (1, 7).

PRODUCT SPECIFIC NOTICES

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